

**REMARKS**

An Excess Claim Fee Payment Letter is submitted herewith to cover the cost of excess claims added by this Amendment.

Claims 1-12 and 16-28 are all the claims presently pending in the application. Claims 13-15 have been canceled, and claims 1, 4, 6-10, 12, 16 and 18 have been amended to more particularly define the invention. Claims 20-28 have been added to claim additional features of the invention.

It is noted that the claim amendments are made only for more particularly pointing out the invention, and not for distinguishing the invention over the prior art, narrowing the claims or for any statutory requirements of patentability. Further, Applicant specifically states that no amendment to any claim herein should be construed as a disclaimer of any interest in or right to an equivalent of any element or feature of the amended claim.

Claims 1-12 stand rejected under 35 U.S.C. § 112, second paragraph. Claims 1-12 and 16-19 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Noble, et al., in view of Beach, et al., Thorne, et al. and Sasamoto, et al.

These rejections are respectfully traversed in the following discussion.

**I. THE CLAIMED INVENTION**

The claimed invention (e.g., as defined in the exemplary embodiment of independent claim 1), is directed to a golf club head having a face portion formed by using a rolled metal plate member the face portion having a thick-walled portion and a thin-walled portion.

Importantly, in this aspect, a reverse surface of said face portion includes a flat surface at said thick-walled portion (Application at Figure 16). With this structure, a face portion with which the golf ball is impacted (e.g., directly impacted) is hard to deform, thereby improving a feeling of a "solid impact". In addition, the flat surface of the reverse surface of the face portion helps to depress a variation in strength of the face portion (Application at page 32, line 19-page 33, line 20).

In another exemplary aspect (e.g., as recited in claim 9), the thick-walled portion and the thin-walled portion are formed in the face portion by forging the rolled metal plate, and a thickness of the thick-walled portion is substantially the same as a thickness of a plate from which the face portion is forged. Further, in another aspect (e.g., as recited in newly added

claim 28), at least a portion of a reverse surface of said face portion is machined to form the thin-walled portion. These novel features of the invention help to avoid a plastic deformation of the face portion, ensuring that little variation occurs in the density of the face portion (Application at page 5, lines 1-10).

## **II. THE 35 USC 112, SECOND PARAGRAPH REJECTION**

The Examiner alleges that claims 1-12 are indefinite as failing to particularly point out and distinctly claim the invention. Applicant submits, however, that these claims are not indefinite.

Specifically, Applicant submits that the claims have been amended to delete the term “plate-like”. In addition, with respect to claim 8, Applicant submits that the claim has been amended to delete the term “thinner”.

Therefore, Applicant respectfully submits that these claims are not indefinite as alleged by the Examiner. Therefore, the Examiner is respectfully requested to withdraw this rejection.

## **III. THE NOBLE, BEACH, THORNE AND SASAMOTO REFERENCES**

The Examiner alleges that Noble would have been combined with Beach, Thorne and Sasamoto to form the claimed invention. Applicant submits, however, that these references would not have been combined and even if combined, the combination would not teach or suggest each and every element of the claimed invention.

First, Applicant submits that the Examiner is surprisingly combining no less than four references in his attempt to reject the claims of the present Application. Applicant submits that is stretching the bounds of reason to allege that four references would have been combined as alleged by the Examiner. Thus, Applicant submits that, based on this fact alone, it is clear that the Examiner has failed to make a prima facie case of obviousness.

Further, Applicant submits that these references are directed to different problems and solutions. Therefore, Applicant submits that these references would not have been combined as alleged by the Examiner.

Noble discloses a golf club head in which the front wall of the body varies in thickness in two planes including a first plane that is disposed substantially horizontally

between the top and bottom walls of the body and a second plane that is disposed substantially vertically between the heel and toe ends of the head.

Contrary to Noble, Beach discloses a method for forming a golf club head which includes placing an uncured composite material between a core and a mold that comprises a first piece and a second piece. The second piece is moved towards the first piece such that the uncured composite material is compressed between the core and at least a portion of the mold.

Contrary to Noble and Beach, Thorne discloses a golf club part including a metal component including a photo-chemically engraved artwork formed in its surface. The part is etched by applying a photoresist material to the metal surface, using graphic art film, and masking of surface areas in which artwork will be created by subsequent photochemical engraving.

Contrary to Noble, Beach and Thorne, Sasamoto discloses a golf club head in which the longitudinal direction of crystal grains of a material of the face portion is oriented in the vertical direction of the face portion, or the direction in which the material exhibits a large ductile amount at the time of breaking is oriented in said vertical direction, or the direction in which the material exhibits a large ratio of ductility per unit length is oriented in said vertical direction.

Thus, Applicant submits that these references are completely unrelated, and no person of ordinary skill in the art would have considered combining these disparate references, absent impermissible hindsight.

Further, Applicant submits that the Examiner can point to no motivation or suggestion in the references to urge the combination as alleged by the Examiner. Indeed, we would submit that nowhere do these references include any motivation or suggestion for their combination. Therefore, Applicant respectfully submits that one of ordinary skill in the art would not have been so motivated to combine the references as alleged by the Examiner. Therefore, the Examiner has failed to make a prima facie case of obviousness.

Moreover, Applicant submits that neither Noble, nor Beach, nor Thorne, nor Sasamoto, nor any combination thereof teaches or suggests “*wherein a reverse surface of said face portion comprises a flat surface at said thick-walled portion*”, as recited in claim 1 and similarly recited in claim 16. As noted above, with this structure, a face portion with which

the golf ball is impacted (e.g., directly impacted) is hard to deform, thereby improving a feeling of a “solid impact”. In addition, the flat surface of the reverse surface of the face portion helps to depress a variation in strength of the face portion (Application at page 32, line 19-page 33, line 20).

Clearly, none of the references teach or suggest this novel feature. Indeed, Noble may disclose a thick portion (e.g., T1). However, the reverse surface of the face portion at the thick portion T1 is clearly rounded and not flat (Noble at Figure 9). In fact, nowhere does Noble teach or suggest any advantage to forming a reverse surface of the face portion having a flat surface at the thick portion.

Likewise, Beach does not even teach or suggest a thick-walled portion, let alone a face portion having a reverse surface which includes a flat surface at said thick-walled portion (e.g., see Beach at 3C). Further, Thorne is merely directed to etching a logo (e.g., Ruger®) in a surface of a club head. Thus, Thorne is completely unrelated to the claimed invention and certainly does not teach or suggest the face portion of the claimed invention. In addition, Sasamoto teaches face portion having a uniform thickness (Sasamoto at Figure 9(b)), and is also completely unrelated to the claimed invention.

Thus, clearly none of these references teach or suggest a face portion having a reverse surface which includes a flat surface at said thick-walled portion (e.g., recited in claim 1 and similarly recited in claim 16).

Nor do these references or any combination thereof teach or suggest “*wherein a thickness of said thick-walled portion is substantially the same as a thickness of a plate from which said face portion is forged*”, as recited, for example, in claim 9, or “*wherein at least a portion of a reverse surface of said face portion is machined to form said thin-walled portion*”, as recited in claim 28. As noted above, these novel features of the invention help to avoid a plastic deformation of the face portion, ensuring that little variation occurs in the density of the face portion (Application at page 5, lines 1-10).

As described in the Application, some conventional golf club heads may have a face portion with a varying thickness. However, such heads often break due to imperfections caused in part to a fabrication method (Application at page 5, lines 1-10). The claimed golf club head provides a strong face portion which is hard to damage and provides an excellent directional property (Application at page 10, line 8-page 11, line 6).

Clearly, none of the cited references teach or suggest the novel features in the exemplary embodiments of claim 9 and newly added claim 28. Indeed, the Examiner expressly states that Noble does not teach or suggest these features.

Neither does Beach teach or suggest these features. The Examiner alleges that Beach discloses forming a club head face by forging, attempting to rely on col. 4, lines 16-18 of Beach. However, this passage merely states that the strike plate can be formed by forging. Nowhere does this passage teach or suggest a thick-walled portion, let alone a thin-walled portion. Certainly, the passage does not teach or suggest that such thick-walled and thin-walled portions are formed by forging the rolled metal plate, nor that a thickness of the thick-walled portion is substantially the same as a thickness of a plate from which the face portion is forged. Therefore, Beach clearly fails to make up for the deficiencies of Noble.

Similarly, Thorne does not teach or suggest these features. Indeed, the Examiner attempts to rely on col. 2, lines 60-64 of Thorne to support his allegations.

However, this passage merely teaches that parts of a golf club head can be formed by forging and machining. Indeed, Thorne is merely directed to etching a logo (e.g., Ruger®) in a surface of a club head. Thus, Thorne is completely unrelated to the claimed invention.

Nowhere does this passage teach or suggest a face portion having a reverse surface which is machined to form the thin-walled portion. Nor does this passage teach or suggest a face portion in which the thick-walled portion and the thin-walled portion are formed in the face portion by forging the rolled metal plate, and a thickness of the thick-walled portion is substantially the same as a thickness of a plate from which the face portion is forged. Therefore, Thorne clearly fails to make up for the deficiencies of Noble and Beach.

Likewise, Sasamoto does not teach or suggest the novel features. The Examiner attempts to rely on col. 9, lines 1-65 of Sasamoto to support his allegations.

However, the passage is merely directed to an orientation of the crystal grains in a face portion. Nowhere does this passage teach or suggest a face portion having a reverse surface which is machined to form the thin-walled portion, nor (e.g., where a face portion is forged) that a thickness of the thick-walled portion is substantially the same as a thickness of a plate from which the face portion is forged. Therefore, Sasamoto clearly fails to make up for the deficiencies of Noble, Beach and Thorne.

Therefore, Applicant submits that these references would not have been combined and even if combined, the combination would not teach or suggest each and every element of the claimed invention. Therefore, the Examiner is respectfully requested to withdraw this rejection.

#### IV. FORMAL MATTERS AND CONCLUSION

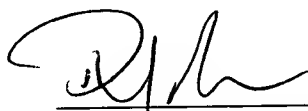
In view of the foregoing, Applicant submits that claims 1-12 and 16-28, all the claims presently pending in the application, are patentably distinct over the prior art of record and are in condition for allowance. The Examiner is respectfully requested to pass the above application to issue at the earliest possible time.

Should the Examiner find the application to be other than in condition for allowance, the Examiner is requested to contact the undersigned at the local telephone number listed below to discuss any other changes deemed necessary in a telephonic or personal interview.

The Commissioner is hereby authorized to charge any deficiency in fees or to credit any overpayment in fees to Attorney's Deposit Account No. 50-0481.

Respectfully Submitted,

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